

Oracle Financial Services
Advanced Analytical
Applications Infrastructure
Pack
Installation and Configuration
Guide

E63677-01

Version 8.0.1.0.0



DOCUMENT CONTROL

Version Number	Revision Date	Changes Done
1.0	Created: July 2015	Captured 8.0.1.0.0 Minor Release installation procedure and configuratio details.
2.0	Modified: April 2017	Added details of consolidated one-off patch 25777667.
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Executive Summary

This document includes the necessary instructions to apply 8.0.1.0.0 Minor Release for OFS Advanced Analytical Applications Infrastructure Application Pack and perform the required post install configurations. You can find the latest copy of this document in [OHC Documentation Library](#).

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Preface

This document provides step-by-step instructions to install the Oracle Financial Services Advanced Analytical Applications Infrastructure (OFS AAI) Application Pack 8.0.1.0.0 Minor Release.

This chapter discusses the following topics:

- Audience
- [How this Guide is organized](#)
- [Recommended Environment](#)
- [Related Documents](#)
- [Conventions Used](#)

Audience

The OFS AAI Application Pack Installation and Configuration Guide is intended for administrators and implementation consultants who are responsible for installing and maintaining the application pack components.

Prerequisites for the Audience

The document assumes that you have experience in installing Enterprise components and basic knowledge about the following is recommended:

- Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack components
- OFSAA Architecture
- UNIX Commands
- Database Concepts
- Web Server/ Web Application Server

How this Guide is Organized

The OFS AAI Application Pack Installation and Configuration Guide includes the following topics:

- [OFS AAI Application Pack Minor Release 8.0.1.0.0](#)
- [Appendix A](#)

Recommended Environment

Infrastructure application has been tested with Microsoft Internet Explorer™ browser. For best viewing of Infrastructure pages, set the screen resolution to a minimum resolution of 1024 x 768 pixels.

Conventions and Acronyms

Conventions	Description
Actions are indicated in Bold .	
Command or query is indicated in <code>Courier New font</code> .	
AIX	Advanced Interactive eXecutive
OFSAAI	Oracle Financial Services Analytical Applications Infrastructure
OFS AAI	Oracle Financial Services Advanced Analytical Applications Infrastructure Application Pack
OHC	Oracle Help Center
RHEL	Red Hat Enterprise Linux
ML	Maintenance Level
R	Third-party open source software. Open source R is governed by GNU General Public License (GPL).
Oracle R Distribution	Oracle R Distribution is Oracle's free distribution of open source R.
Oracle R Enterprise	Oracle R Enterprise integrates R, the open source scripting language and environment, with Oracle Database.
Atomic Schema	Database schema where the application data model is uploaded.
Config Schema	Database schema which contains setup related configurations and metadata.

1 OFS AAI Application Pack Minor Release 8.0.1.0.0

This release of OFS AAI Application Pack is cumulative and includes all enhancements and bug fixes done since the OFS AAI Application Pack v8.0.0.0.0 release.

1.1 Pre Installation Requirements

1. You should have OFS AAI Application Pack version 8.0.0.0.0 as the minimum patch set level.

NOTE: You can refer to [Technology Matrix](#), for Hardware and Software Requirements.

2. Download the consolidated one-off patch 25777667 from [My Oracle Support](#).

1.2 How to Apply This Release?

1.2.1 Installing OFS AAI Application Pack

Refer to the following instructions to download, extract, install, and configure this release.

1. Log in to <https://support.oracle.com/> and search for **21054241** under the *Patches & Updates* tab.
2. Download the OFS AAI Application Pack v8.0.1.0.0 archive file and copy it to your OFSAA server in **Binary** mode.

NOTE: The archive files are different for every operating system like AIX, Solaris, and RHEL/Oracle Linux.

3. Log in to the OFSAA Server.
4. Shut down all the OFSAAI Services. For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).
5. Execute the following command:

```
chmod -R 750 $FIC_HOME
```
6. If you have Unzip utility, skip to the next step. Download the Unzip utility (OS specific) **unzip_<os>.Z** from the location <https://updates.oracle.com/unzips/unzips.html> and copy it in **Binary** mode to the directory that is included in your PATH variable, typically **\$HOME** path or directory in which you have copied the 8.0.1.0.0 installer.

- Uncompress the unzip installer file using the command:

```
uncompress unzip_<os>.Z
```

NOTE: In case you notice an error message “**uncompress: not found [No such file or directory]**” when the package is not installed, contact your UNIX administrator.

- Give EXECUTE permission to the file using the command:

```
chmod 751 OFS_AAAI_80100_<OperatingSystem>.zip.
```

7. Extract the contents of the 8.0.1.0.0 archive file using the command:

```
unzip_<os> -a <name of the file to be unzipped>
```

NOTE: The above “-a” option is mandatory to unzip the archive file. For example:

```
unzip_aix -a OFS_AAAI_80100_<OperatingSystem>.zip
```

8. Give EXECUTE permission to the minor release archive file. Navigate to the path *OFS_AAAI_80100_<OperatingSystem>.zip* and execute the command:

```
chmod 750 OFSAAIUpdate.sh
```

9. Execute **OFSAAIUpdate.sh** file using the following command.

```
./OFSAAIUpdate.sh
```

Verify if the release is applied successfully by checking the log file generated in the installation folder. You can ignore ORA-00001, ORA-00955, ORA-02260, and ORA-01430 errors in the log file. In case of any other errors, contact Oracle Support.

10. Install the consolidated one-off patch 25777667. Refer to the Readme available with the patch for further instructions on installing the patch.
11. For more information on securing your OFSAA Infrastructure, refer to the Security Guide in [OHC Documentation Library](#).
12. After successful installation, follow these steps:

- Clear the application cache. Navigate to the following path depending on the configured web application server and delete the files.

- **Tomcat:**

```
<Tomcat installation folder>/work/Catalina/localhost/<Application name>/org/apache/jsp
```

- **Weblogic:**

```
<Weblogic installation location>/domains/<Domain name>/servers/<Server name>/tmp/_WL_user/<Application name>/<auto generated folder>/jsp_servlet
```

- **Websphere:**

```
<Websphere installation directory>/AppServer/profiles/<Profile name>/temp/<Node name>/server1/<Application name>/<.war file name>
```

13. Add umask 0027 in the `.profile` of the UNIX account which manages the WEB server to ensure restricted access permissions.
14. Perform the necessary additional configuration as mentioned in [Additional Configurations](#) section.
15. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* section in [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).
16. After the successful installation of the release, restart all the OFSAAI services. For more information, refer to the *Start/Stop Infrastructure Services* section [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).

1.3 Additional Configurations

1.3.1 Configurations for Enterprise Modeling

The following configurations are applicable only if OFS Enterprise Modeling is licensed and enabled in the OFSAA instance on which this release is being installed.

1.3.1.1 Configuration of Oracle R distribution and Oracle R enterprise (ORE)

You can refer the [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#) for information on configuration of Oracle R distribution and Oracle R Enterprise.

1.3.1.2 Configuration of Open R

OFSAAI Remote invocation of R distribution (Open-R, Revo-R & others) is an enhancement to the framework which enables remote execution of R scripted Models on a remote server (node). By configuring OFSAAI with a run time parameter, you can execute a model on any node.

NOTE: The reference implementation provided by Oracle is for Open-R distribution. Any other distribution requires custom plug-in based well-published interface-specification to interchange data/ parameters and output handling.

The R script models can be executed on open R distributions. The R server can be installed in the same machine as that of OFSAA Server or in a remote machine. The R server and the implementation details have to be configured in `ModelingFramework.xml` file which is available in `$FIC_DB_HOME/conf` and `$FIC_WEB_HOME/webroot/conf` folder. By default, the configuration is done with the implementation of open R invocation from Enterprise Modeling.

You should install the following packages as a prerequisite along with R (Version 3.0.1) in the R server machine:

- DBI - version 0.2-7 (Download link - <http://cran.r-project.org/web/packages/DBI/index.html>)
- Cairo - version 1.5-6 (Download link: <http://cran.r-project.org/web/packages/Cairo/index.html>)
- rJava- version 0.9-6(Download link - <http://cran.r-project.org/web/packages/rJava/index.html>)
- RJDBC - version 0.2-4(Download link - <http://cran.rproject.org/web/packages/RJDBC/index.html>)
- Rserve - version 1.8-0(Download link - <http://rforge.net/Rserve/files/>). This package is required only for remote mode of execution.

To configure the `ModelingFramework.xml` file, perform the following steps:

1. Navigate to `$FIC_DB_HOME/conf/` (DB Layer) and `$FIC_WEB_HOME/webroot/conf` (Web Layer).
2. Edit the tags mentioned in the following table in the `ModelingFramework.xml` file.

Tag Name	Description
<pre><Target id="\$HOST\$" PRIMARY_NODE = "\$TRUE/FALSE\$" LANGUAGE = "\$R\$" EXE_ENV="\$Standard R Engine\$" INPUT_DATA_TYPE = "\$DF\$" NAME="\$Logical Name for the target\$" ></pre>	<ul style="list-style-type: none"> ▪ Target id: Replace <code>\$HOST\$</code> with IP Address/Host Name of the remote machine where Rserve is running. ▪ Primary Node: Enter TRUE to indicate that this is the primary node where execution happens when the host is not passed as a runtime execution parameter. Note: Online execution will always happen on the primary node. ▪ Language: Enter the language in which the script is written. In this release, only R script language is supported. ▪ EXE_ENV: Enter the execution engine in which the script should be executed. In this release, only Standard R engine is supported. ▪ INPUT_DATA_TYPE: Enter the data type format. In this release, only Data Frame is supported. ▪ NAME: Enter a unique logical name for the combination of language, execution engine and input data type.

Tag Name	Description
<CLASS_NAME>modeling.client.impl.Exe cuteScript</CLASS_NAME>	▪
<DELETE_RFILE>N</DELETE_RFILE>	▪
<REMOTE_FILE_PATH>\$FILE_PATH\$</REMOT E_FILE_PATH>	<p>Replace \$FILE_PATH\$ with the path in the remote machine that has complete access rights to all users. After a model is executed, the R script file and outputs are created.</p> <p>Note: The <i>lib</i> and <i>conf</i> folders have to be created under the path mentioned in <REMOTE_FILE_PATH> tag.</p>
<REMOTESERVICE_PORT>\$PORT\$</REMOTESE RVICE_PORT>	<p>Replace \$PORT\$ with the port configured for Rserve. The default Rserve port is 6311.</p>
<USER> <NAME>\$USERNAME\$</NAME> <PASSWORD>\$PASSWORD\$</PASSWORD> </USER>	<p>Replace the \$USERNAME\$ and \$PASSWORD\$ with the user who have access to the Rserve Location.</p> <p>Note: It should be same as the entry made in <i>Rserveusers</i> file.</p>
<IS_OUTPUT_REQ_IN_OFSAA>N</IS_OUTPUT _REQ_IN_OFSAA>	<p>This flag indicates whether the outputs are required to be written back to the OFSAA tables.</p>
<IS_DETAILED_OUTPUT_REQUIRED>Y</IS_D ETAILED_OUTPUT_REQUIRED>	<p>This flag indicates whether the .csv output file has to be created in the machine where models are executed.</p>
<p>Note: You should set <IS_OUTPUT_REQ_IN_OFSAA> or <IS_DETAILED_OUTPUT_REQUIRED> tags to Y. To view the Models in the Model Output window, at least one of the tags should be set to Yes.</p>	
<PRE_SCRIPT_FILE>REEXECUTION_PREFIX , \$ PRE SCRIPT FILE NAME\$</PRE_SCRIPT_FILE>	<p>This flag indicates the prescript to be appended to the user script. The OFSAA prescript is configured by default.</p> <p>A place holder is mentioned in the pre-script configuration tag. If additional pre-scripts are required, you can replace this with pre-script file name, else remove this place holder.</p> <p>Note: The custom pre-script file name provided should be with the extension '.R' and it has to be placed under \$FIC_DB_HOME/conf folder.</p>
<POST_SCRIPT_FILE></POST_SCRIPT_FILE >	<p>This flag indicates the postscript to be appended to the user script. By default, R postscript is configured.</p> <p>The OFSAA postscript is considered by default. You can configure this tag if you want to have a different post script file name.</p>

3. If RJDBC connection is required, place the `ojdbc<version>.jar` in the `$FIC_DB_HOME/lib` folder. RJDBC package is required if the outputs are required in Enterprise Modeling output tables.

NOTE: The version of `ojdbc<version>.jar` file is based on the Java version.

4. The following jar files need to be copied to `$FIC_DB_HOME/lib/` and `$FIC_WEB_HOME/webroot/WEB-INF/lib` folders:

- `RserveEngine.jar`
- `REngine.jar`

The download link is <https://rforge.net/Rserve/files/>.

5. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the *Post Installation Configuration* section in [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).

1.3.1.3 Configurations for Rserve in Remote Nodes (where Open –R Engine is installed)

Create `Rserv.conf` file in the `/etc` folder. The configuration entries mentioned in the following table should be done in the `Rserv.conf` file:

Tags	Possible Values	Description
workdir	Path: <code>/etc/workdir</code>	Provide the path of the working directory.
pwdfile		The username and password details should be configured in this file, which is available in the <code>/etc/Rserveusers</code> folder.
remote	enable/ disable	This option should be enabled.
auth	enable/ disable	This option should be enabled.
plaintext	enable/ disable	This option should be enabled.
port	6311	Enter the port number.
maxsendbuf	0=unlimited	Enter the size in kb.

Tags	Possible Values	Description
control	Enable/ disable	
interactive	No	

NOTE: For more information, refer to the link: <http://rforge.net/Rserve/doc.html>.

1.3.1.4 Configuration for Tomcat

To stop generating static content with one print statement per input line, you need to configure the `web.xml` file.

To configure `web.xml` file, perform the following steps:

1. Navigate to `tomcat/conf` folder.
2. Edit `web.xml` file as explained below:

Set the mapped file parameter to **False** in the servlet tag mentioned with `<servlet-name>jsp</servlet-name>`.

```

<init-param>
<param-name>mappedfile</param-name>
<param-value>>false</param-value>
</init-param>
```

1.3.2 Configurations for Inline Processing Engine (IPE)

You should create an additional resource reference as `JDBC/<INFODOMNAME>` pointing to the same atomic schema of IPE infodom. For information on creating resource reference, refer *Appendix B* in [Oracle Financial Services Inline Processing Engine \(IPE\) Configuration Guide 8.0.1.0.0](#).

For example:

```
JDBC/OFSAAAIINFO
JDBC/OFSAAAIINFOCNF
```

1.4 Post Installation Configuration

1.4.1 Configure `excludeURLList.cfg` file

Configure `excludeURLList.cfg` file, follow these steps:

1. Locate the webserver deployed area `webroot/conf/excludeURLList.cfg` file.

2. Modify the following entries:
 - [SQLIA]./dataIntegrator/ to [ALL]./dataIntegrator/
 - [SQLIA]./ETLExtractionServlet to [ALL]./ETLExtractionServlet
3. Save the changes and restart the webserver.
4. Resave the definition.

Appendix A

Frequently Asked Questions

What checks does the 8.0.1.0.0 Release patch perform?

- Environment Check- As part of environment check, it performs Java validation, Environment Variables validation, OS specific validation, DB specific validation, and it shuts down all OFSAAI Services (Infrastructure Server, ICC Server, and back-end services).
- Post Install check- As part of Post install check, it checks if OFSAAI services can be successfully started.

Which version of ERwin Data Modeler does OFSAAI support?

OFSAAI now supports ERwin version 9.2 and 9.5 generated xmls in addition to ERwin 4.1, ERwin 7.1, ERwin 7.3 and ERwin 9.0 formats.

What should I do for viewing the log files in Debug level for troubleshooting?

By default, the log level is set as INFO. You need to manually change it to Debug to view the log files in debug level. Based on your requirement, you can change the log level to Warn, Error, or Fatal as well.

1. Navigate to `$FIC_HOME/conf` in the APP layer of your OFSAAI installation.
 - Change the **priority value** to **Debug** in the `RevLog4jConfig.xml` file.

For example:

```
<root>
  <priority value ="debug" />
  <appender-ref ref="ConsoleAppender1"/>
</root>
```

- Change the value of **LOGGERLEVEL** in the `DynamicServices.xml` file from **20** to **0**. (**20** is the value for Info and **0** for Debug.)

NOTE: For multi-tier installation, you need to change the log level to Debug in the `DynamicServices.xml` and `RevLog4jConfig.xml` files, which are present in `$FIC_APP_HOME/conf`, `$FIC_DB_HOME/conf`, and `$FIC_WEB_HOME/conf` as well.

2. Navigate to `$FIC_WEB_HOME/webroot/conf` and change the **priority value** to **Debug** in the `ExportLog4jConfig.xml`, `MDBLogger.xml`, and `PR2Logger.xml` files for viewing log files in Debug level for the modules Archive/Restore, Metadata Browser and RRF respectively.
3. Generate the application EAR/WAR file and redeploy the application onto your configured web application server. For more information on generating and deploying EAR / WAR file, refer to the

Post Installation Configuration section in [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).

4. Restart the OFSAAI Services (APP and WEB). For more information, refer to the *Start/Stop Infrastructure Services* section in [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#).

Can I install OFSAA 8.0.0.0.0 release Application Packs on an OFSAA instance which is already upgraded to a higher version say 8.0.1.0.0?

Yes. You can install an OFSAA 8.0.0.0.0 release Application Packs on an OFSAA instance which is already upgraded to a higher version. Refer the *Installer and Installation Prerequisites* table (section *Installer and Installation Prerequisites* >> *Category Others* >> *Sub-Category OFSAA*) in the [Oracle Financial Services Analytical Applications Infrastructure Installation & Configuration Guide 8.0.0.0.0](#) for more details prior to proceeding with the installation.



OFSAAI

8.0.1.0.0 Installation and Configuration Guide

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